1FW16

CRF Errors Edited by the STIC Systems Branch

Serial Number: 09/993,234B

CRF Edit Date: 10/8/04
Edited by: AZ

___ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

___ Corrected the SEQ ID NO. Sequence numbers edited were:

_____

___ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

_____

✓ Deleted: ✓ invalid beginning/end-of-file text ; ___ page numbers

___ Inserted mandatory headings/numeric identifiers, specifically:

_____

___ Moved responses to same line as heading/numeric identifier, specifically:

_____

___ Other:

_____

_____

_____

Revised 09/09/2003

IFW16

RAW SEQUENCE LISTING DATE: 10/08/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 18:04:36

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\10082004\I993234B.raw**

SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT: Ashkenazi, Avi J.

(ii) TITLE OF INVENTION: Apo-2 LI AND Apo-3 POLYPEPTIDES

(iii) NUMBER OF SEQUENCES: 28

(iv) CORRESPONDENCE ADDRESS:
(A) ADDRESSEE: Genentech, Inc.
(B) STREET: 1 DNA Way
(C) CITY: South San Francisco
(D) STATE: California
(E) COUNTRY: USA
(F) ZIP: 94080

(v) COMPUTER READABLE FORM:
(A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
(B) COMPUTER: IBM PC compatible
(C) OPERATING SYSTEM: PC-DOS/MS-DOS
(D) SOFTWARE: WinPatin (Genentech)

(vi) CURRENT APPLICATION DATA:
C--> **(A) APPLICATION NUMBER: US/09/993,234B**
C--> **(B) FILING DATE: 19-Nov-2001**
(C) CLASSIFICATION:

(vii) PRIOR APPLICATION DATA:
(A) APPLICATION NUMBER: 08/828683
(B) FILING DATE: 31-MAR-1997
(A) APPLICATION NUMBER: 08/625328
(B) FILING DATE: 1-Apr-1996
(A) APPLICATION NUMBER: 08/710802
(B) FILING DATE: 23-Sep-1996

(viii) ATTORNEY/AGENT INFORMATION:
(A) NAME: Marschang, Diane L.
(B) REGISTRATION NUMBER: 35,600
(C) REFERENCE/DOCKET NUMBER: P1007P1D1

(ix) TELECOMMUNICATION INFORMATION:
(A) TELEPHONE: 650/225-5416
(B) TELEFAX: 650/952-9881

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 181 amino acids
(B) TYPE: Amino Acid
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

```
Met Glu Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu
 1               5                  10                  15
```

RAW SEQUENCE LISTING DATE: 10/08/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 18:04:36

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\10082004\I993234B.raw**

```
Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr Arg Ser
                 20                  25                  30
Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys Lys Ile Gly Leu
                 35                  40                  45
Phe Cys Cys Arg Gly Cys Pro Ala Gly His Tyr Leu Lys Ala Pro
                 50                  55                  60
Cys Thr Glu Pro Cys Gly Asn Ser Thr Cys Leu Val Cys Pro Gln
                 65                  70                  75
Asp Thr Phe Leu Ala Trp Glu Asn His His Asn Ser Glu Cys Ala
                 80                  85                  90
Arg Cys Gln Ala Cys Asp Glu Gln Ala Ser Gln Val Ala Leu Glu
                 95                 100                 105
Asn Cys Ser Ala Val Ala Asp Thr Arg Cys Gly Cys Lys Pro Gly
                110                 115                 120
Trp Phe Val Glu Cys Gln Val Ser Gln Cys Val Ser Ser Ser Pro
                125                 130                 135
Phe Tyr Cys Gln Pro Cys Leu Asp Cys Gly Ala Leu His Arg His
                140                 145                 150
Thr Arg Leu Leu Cys Ser Arg Arg Asp Thr Asp Cys Gly Thr Cys
                155                 160                 165
Leu Pro Gly Phe Tyr Glu His Gly Asp Gly Cys Val Ser Cys Pro
                170                 175                 180
Thr
(2) INFORMATION FOR SEQ ID NO: 2:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 433 base pairs
          (B) TYPE: Nucleic Acid
          (C) STRANDEDNESS: Single
          (D) TOPOLOGY: Linear
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
 CTGCTGGGGG CCCGGGCCAG NGGCGGCACT CGTAGCCCCA GGTGTGACTG 50
 TGCCGGTGAC TTCCACAAGA AGATTGGTCT GTTTTGTTGC AGAGGCTGCC 100
 CAGCGGGGCA ACTACCTGAA GGCCCCTTGC ACGGAGCCCT GCGCAACTCC 150
 ACCTGCCTTG TGTGTCCCCA AGACACCTTC TTGGCCTGGG AGAACCACCA 200
 TAATTCTGAA TGTGCCCGCT GCCAGGCCTG TGATGAGCAG GCCTCCCAGG 250
 TGGCGCTGGA GAACTGTTCA GCAGTGGCCG ACACCCGCTG TGGCTGTAAG 300
 CAGGGCTGGT TTGTGGAGTG CCAGGGTCAG CCAATGTGTC AGCAGTTTCA 350
 CCCTTCTAAT GCCAACCATG CCTAGACTGC GGGGCCCTGC AACGCAACAC 400
 ACGGCTAATN TGTTTCCCGC AGAGATNATT GTT 433
(2) INFORMATION FOR SEQ ID NO: 3:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 28 base pairs
          (B) TYPE: Nucleic Acid
          (C) STRANDEDNESS: Single
          (D) TOPOLOGY: Linear
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
 CCCGCTGCCA GGCCTGTGAT GAGCAGGC 28
(2) INFORMATION FOR SEQ ID NO: 4:
     (i) SEQUENCE CHARACTERISTICS:
```

RAW SEQUENCE LISTING DATE: 10/08/2004
PATENT APPLICATION: US/09/993,234B TIME: 18:04:36

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF4\10082004\I993234B.raw

(A) LENGTH: 28 base pairs
(B) TYPE: Nucleic Acid
(C) STRANDEDNESS: Single
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CAGGGCCCCG CAGTCTAGGC ATGGTTGG 28

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1438 base pairs
(B) TYPE: Nucleic Acid
(C) STRANDEDNESS: Single
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GAATTCCGGC GCGGAGGCCG AGAGAGAAGT CACTTGCCCT GGCTCTACCT 50
TGAAGTGGTT CTCAGGGTTG GGGCGAGAGT CGGGGTGGGG ACCGAGATGC 100
AGCTCTATCC TGTGCCCCTG GTCGCAGCAG GCAGCCCAGC GCTTCGCGTG 150
TTCTACTTGG CCTGTCCGCT GCCGCCTAAT GAGCTCAGGT CTAGGCCGAG 200
CAGAGGGGGC ACCTGGTCGG ACTCGGTTGG GCTCGGGCGG CCCCGCCTCC 250
CCCCGCCCGC CAGGCGGGCC CTTCTCGACG GCGCGGGGCG GGCCCTGCGG 300
GCGCGGGGCT GAAGGCGGAA CCACGACGGG CAGAGAGCAC GGAGCCGGGA 350
AGCCCCTGGG CGCCCGTCGG AGGGCTATGG AGCAGCGGCC GCGGGGCTGC 400
GCGGCGGTGG CGGCGGCGCT CCTCCTGGTG CTGCTGGGGG CCCGGGCCCA 450
GGGCGGCACT CGTAGCCCCA GGTGTGACTG TGCCGGTGAC TTCCACAAGA 500
AGATTGGTCT GTTTTGTTGC AGAGGCTGCC CAGCGGGGCA CTACCTGAAG 550
GCCCCTTGCA CGGAGCCCTG CGGCAACTCC ACCTGCCTTG TGTGTCCCCA 600
AGACACCTTC TTGGCCTGGG AGAACCACCA TAATTCTGAA TGTGCCCGCT 650
GCCAGGCCTG TGATGAGCAG GCCTCCCAGG TGGCGCTGGA GAACTGTTCA 700
GCAGTGGCCG ACACCCGCTG TGGCTGTAAG CCAGGCTGGT TTGTGGAGTG 750
CCAGGTCAGC CAATGTGTCA GCAGTTCACC CTTCTACTGC CAACCATGCC 800
TAGACTGCGG GGCCCTGCAC CGCCACACAC GGCTACTCTG TTCCCGCAGA 850
GATACTGACT GTGGGACCTG CCTGCCTGGC TTCTATGAAC ATGGCGATGG 900
CTGCGTGTCC TGCCCCACGT AATTCCTAGC TGTCGTGGGA TGGAGGGAAG 950
GGCGGCTGGG AGCAGAGCAG GGGCCTGGGG TGGGGCAGGT GCTGCTGGTT 1000
CAGGAATAGG AAGAGGGGAT AGGGAGGAGG GAGCCTTGGC CCTGTGATGG 1050
GTGGGCCCCA CTTCAGGCAA ACTTAGATGG CAAAAGAGCA ATCTGGATCC 1100
GCCTTAGCCA GATACATAAG GGTATTTGCC TTCACTTTCA GCCAGCATTC 1150
CCCCCAGCGA TCCTAGCCAG ATATTACAGA TGATTTGTCA CTTACACAGA 1200
GAGTCACATT GATATAGCTT TAAAACTTGG GCTGAAGGAG GTTGAGGCTG 1250
CAGTGAGCTA TGATCGTGCC ACTGCACTTC AGCCTGGGCA ACAGAGCGAG 1300
ACCTATTAAA TAAATAAATA AATATTAAAT CTATTAAATA TTAAATATTA 1350
AATCTATTAA ATAAATAAAT ACAAAGGGCT GAGAGTCAGG ACTGTGCTGC 1400
TAGTTCTCTA GGGGATCTTG GGCAAGTGCA GAGAATTC 1438

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 417 amino acids
(B) TYPE: Amino Acid
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

Met Glu Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu

RAW SEQUENCE LISTING DATE: 10/08/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 18:04:36

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\10082004\I993234B.raw**

```
235   1               5                  10                  15
237  Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr Arg Ser
238                  20                  25                  30
240  Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys Lys Ile Gly Leu
241                  35                  40                  45
243  Phe Cys Cys Arg Gly Cys Pro Ala Gly His Tyr Leu Lys Ala Pro
244                  50                  55                  60
246  Cys Thr Glu Pro Cys Gly Asn Ser Thr Cys Leu Val Cys Pro Gln
247                  65                  70                  75
249  Asp Thr Phe Leu Ala Trp Glu Asn His His Asn Ser Glu Cys Ala
250                  80                  85                  90
252  Arg Cys Gln Ala Cys Asp Glu Gln Ala Ser Gln Val Ala Leu Glu
253                  95                 100                 105
255  Asn Cys Ser Ala Val Ala Asp Thr Arg Cys Gly Cys Lys Pro Gly
256                 110                 115                 120
258  Trp Phe Val Glu Cys Gln Val Ser Gln Cys Val Ser Ser Ser Pro
259                 125                 130                 135
261  Phe Tyr Cys Gln Pro Cys Leu Asp Cys Gly Ala Leu His Arg His
262                 140                 145                 150
264  Thr Arg Leu Leu Cys Ser Arg Arg Asp Thr Asp Cys Gly Thr Cys
265                 155                 160                 165
267  Leu Pro Gly Phe Tyr Glu His Gly Asp Gly Cys Val Ser Cys Pro
268                 170                 175                 180
270  Thr Ser Thr Leu Gly Ser Cys Pro Glu Arg Cys Ala Ala Val Cys
271                 185                 190                 195
273  Gly Trp Arg Gln Met Phe Trp Val Gln Val Leu Leu Ala Gly Leu
274                 200                 205                 210
276  Val Val Pro Leu Leu Leu Gly Ala Thr Leu Thr Tyr Thr Tyr Arg
277                 215                 220                 225
279  His Cys Trp Pro His Lys Pro Leu Val Thr Ala Asp Glu Ala Gly
280                 230                 235                 240
282  Met Glu Ala Leu Thr Pro Pro Pro Ala Thr His Leu Ser Pro Leu
283                 245                 250                 255
285  Asp Ser Ala His Thr Leu Leu Ala Pro Pro Asp Ser Ser Glu Lys
286                 260                 265                 270
288  Ile Cys Thr Val Gln Leu Val Gly Asn Ser Trp Thr Pro Gly Tyr
289                 275                 280                 285
291  Pro Glu Thr Gln Glu Ala Leu Cys Pro Gln Val Thr Trp Ser Trp
292                 290                 295                 300
294  Asp Gln Leu Pro Ser Arg Ala Leu Gly Pro Ala Ala Ala Pro Thr
295                 305                 310                 315
297  Leu Ser Pro Glu Ser Pro Ala Gly Ser Pro Ala Met Met Leu Gln
298                 320                 325                 330
300  Pro Gly Pro Gln Leu Tyr Asp Val Met Asp Ala Val Pro Ala Arg
301                 335                 340                 345
303  Arg Trp Lys Glu Phe Val Arg Thr Leu Gly Leu Arg Glu Ala Glu
304                 350                 355                 360
306  Ile Glu Ala Val Glu Val Glu Ile Gly Arg Phe Arg Asp Gln Gln
307                 365                 370                 375
```

RAW SEQUENCE LISTING DATE: 10/08/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 18:04:36

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\10082004\I993234B.raw**

```
309  Tyr Glu Met Leu Lys Arg Trp Arg Gln Gln Gln Pro Ala Gly Leu
310                  380                 385                 390
312  Gly Ala Val Tyr Ala Ala Leu Glu Arg Met Gly Leu Asp Gly Cys
313                  395                 400                 405
315  Val Glu Asp Leu Arg Ser Arg Leu Gln Arg Gly Pro
316                  410                 415
318 (2) INFORMATION FOR SEQ ID NO: 7:
320      (i) SEQUENCE CHARACTERISTICS:
321           (A) LENGTH: 27 base pairs
322           (B) TYPE: Nucleic Acid
323           (C) STRANDEDNESS: Single
324           (D) TOPOLOGY: Linear
326     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
329  GGCGCTCTGG TGGCCCTTGC AGAAGCC 27
331 (2) INFORMATION FOR SEQ ID NO: 8:
333      (i) SEQUENCE CHARACTERISTICS:
334           (A) LENGTH: 25 base pairs
335           (B) TYPE: Nucleic Acid
336           (C) STRANDEDNESS: Single
337           (D) TOPOLOGY: Linear
339     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
342  TTCGGCCGAG AAGTTGAGAA ATGTC 25
344 (2) INFORMATION FOR SEQ ID NO: 9:
346      (i) SEQUENCE CHARACTERISTICS:
347           (A) LENGTH: 1634 base pairs
348           (B) TYPE: Nucleic Acid
349           (C) STRANDEDNESS: Single
350           (D) TOPOLOGY: Linear
352     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
355  CGGGCCCTGC GGGCGCGGGG CTGAAGGCGG AACCACGACG GGCAGAGAGC 50
357  ACGGAGCCGG GAAGCCCCTG GGCGCCCGTC GGAGGGCT   ATG GAG 94
358                                               Met Glu
359                                                 1
361  CAG CGG CCG CGG GGC TGC GCG GCG GTG GCG GCG GCG CTC 133
362  Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu
363            5                  10                  15
365  CTC CTG GTG CTG CTG GGG GCC CGG GCC CAG GGC GGC ACT 172
366  Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr
367                  20                  25
369  CGT AGC CCC AGG TGT GAC TGT GCC GGT GAC TTC CAC AAG 211
370  Arg Ser Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys
371       30                  35                  40
373  AAG ATT GGT CTG TTT TGT TGC AGA GGC TGC CCA GCG GGG 250
374  Lys Ile Gly Leu Phe Cys Cys Arg Gly Cys Pro Ala Gly
375               45                  50
377  CAC TAC CTG AAG GCC CCT TGC ACG GAG CCC TGC GGC AAC 289
378  His Tyr Leu Lys Ala Pro Cys Thr Glu Pro Cys Gly Asn
379   55                  60                  65
381  TCC ACC TGC CTT GTG TGT CCC CAA GAC ACC TTC TTG GCC 328
```

VERIFICATION SUMMARY DATE: 10/08/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 18:04:37

Input Set : **A:\PTO.AMC.txt**
Output Set: **N:\CRF4\10082004\I993234B.raw**

L:29 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]

IFW16

RAW SEQUENCE LISTING DATE: 10/07/2004
PATENT APPLICATION: US/09/993,234B TIME: 11:16:55

Input Set : A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt
Output Set: N:\CRF4\10072004\I993234B.raw

SEQUENCE LISTING
W--> 1 Patin Docket Preview
W--> 8 (1) GENERAL INFORMATION:
10 (i) APPLICANT: Ashkenazi, Avi J.
12 (ii) TITLE OF INVENTION: Apo-2 LI AND Apo-3 POLYPEPTIDES
14 (iii) NUMBER OF SEQUENCES: 28
16 (iv) CORRESPONDENCE ADDRESS:
17 (A) ADDRESSEE: Genentech, Inc.
18 (B) STREET: 1 DNA Way
19 (C) CITY: South San Francisco
20 (D) STATE: California
21 (E) COUNTRY: USA
22 (F) ZIP: 94080
24 (v) COMPUTER READABLE FORM:
25 (A) MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
26 (B) COMPUTER: IBM PC compatible
27 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
28 (D) SOFTWARE: WinPatin (Genentech)
30 (vi) CURRENT APPLICATION DATA:
C--> 31 **(A) APPLICATION NUMBER: US/09/993,234B**
C--> 32 **(B) FILING DATE: 19-Nov-2001**
33 (C) CLASSIFICATION:
43 (vii) PRIOR APPLICATION DATA:
36 (A) APPLICATION NUMBER: 08/828683
37 (B) FILING DATE: 31-MAR-1997
40 (A) APPLICATION NUMBER: 08/625328
41 (B) FILING DATE: 1-Apr-1996
44 (A) APPLICATION NUMBER: 08/710802
45 (B) FILING DATE: 23-Sep-1996
47 (viii) ATTORNEY/AGENT INFORMATION:
48 (A) NAME: Marschang, Diane L.
49 (B) REGISTRATION NUMBER: 35,600
50 (C) REFERENCE/DOCKET NUMBER: P1007P1D1
52 (ix) TELECOMMUNICATION INFORMATION:
53 (A) TELEPHONE: 650/225-5416
54 (B) TELEFAX: 650/952-9881
55 (2) INFORMATION FOR SEQ ID NO: 1:
57 (i) SEQUENCE CHARACTERISTICS:
58 (A) LENGTH: 181 amino acids
59 (B) TYPE: Amino Acid
60 (D) TOPOLOGY: Linear
62 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
64 Met Glu Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING DATE: 10/07/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 11:16:55

Input Set : **A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt**
Output Set: **N:\CRF4\10072004\I993234B.raw**

```
65    1               5                  10                  15
67  Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr Arg Ser
68                  20                  25                  30
70  Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys Lys Ile Gly Leu
71                  35                  40                  45
73  Phe Cys Cys Arg Gly Cys Pro Ala Gly His Tyr Leu Lys Ala Pro
74                  50                  55                  60
76  Cys Thr Glu Pro Cys Gly Asn Ser Thr Cys Leu Val Cys Pro Gln
77                  65                  70                  75
79  Asp Thr Phe Leu Ala Trp Glu Asn His His Asn Ser Glu Cys Ala
80                  80                  85                  90
82  Arg Cys Gln Ala Cys Asp Glu Gln Ala Ser Gln Val Ala Leu Glu
83                  95                 100                 105
85  Asn Cys Ser Ala Val Ala Asp Thr Arg Cys Gly Cys Lys Pro Gly
86                 110                 115                 120
88  Trp Phe Val Glu Cys Gln Val Ser Gln Cys Val Ser Ser Ser Pro
89                 125                 130                 135
91  Phe Tyr Cys Gln Pro Cys Leu Asp Cys Gly Ala Leu His Arg His
92                 140                 145                 150
94  Thr Arg Leu Leu Cys Ser Arg Arg Asp Thr Asp Cys Gly Thr Cys
95                 155                 160                 165
97  Leu Pro Gly Phe Tyr Glu His Gly Asp Gly Cys Val Ser Cys Pro
98                 170                 175                 180
100  Thr
103 (2) INFORMATION FOR SEQ ID NO: 2:
105      (i) SEQUENCE CHARACTERISTICS:
106           (A) LENGTH: 433 base pairs
107           (B) TYPE: Nucleic Acid
108           (C) STRANDEDNESS: Single
109           (D) TOPOLOGY: Linear
111     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
114  CTGCTGGGGG CCCGGGCCAG NGGCGGCACT CGTAGCCCCA GGTGTGACTG 50
116  TGCCGGTGAC TTCCACAAGA AGATTGGTCT GTTTTGTTGC AGAGGCTGCC 100
118  CAGCGGGGCA ACTACCTGAA GGCCCCTTGC ACGGAGCCCT GCGCAACTCC 150
120  ACCTGCCTTG TGTGTCCCCA AGACACCTTC TTGGCCTGGG AGAACCACCA 200
122  TAATTCTGAA TGTGCCCGCT GCCAGGCCTG TGATGAGCAG GCCTCCCAGG 250
124  TGGCGCTGGA GAACTGTTCA GCAGTGGCCG ACACCCGCTG TGGCTGTAAG 300
126  CAGGGCTGGT TTGTGGAGTG CCAGGGTCAG CCAATGTGTC AGCAGTTTCA 350
128  CCCTTCTAAT GCCAACCATG CCTAGACTGC GGGGCCCTGC AACGCAACAC 400
130  ACGGCTAATN TGTTTCCCGC AGAGATNATT GTT 433
132 (2) INFORMATION FOR SEQ ID NO: 3:
134      (i) SEQUENCE CHARACTERISTICS:
135           (A) LENGTH: 28 base pairs
136           (B) TYPE: Nucleic Acid
137           (C) STRANDEDNESS: Single
138           (D) TOPOLOGY: Linear
140     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
143  CCCGCTGCCA GGCCTGTGAT GAGCAGGC 28
145 (2) INFORMATION FOR SEQ ID NO: 4:
```

RAW SEQUENCE LISTING DATE: 10/07/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 11:16:55

Input Set : **A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt**
Output Set: **N:\CRF4\10072004\I993234B.raw**

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 28 base pairs
(B) TYPE: Nucleic Acid
(C) STRANDEDNESS: Single
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CAGGGCCCCG CAGTCTAGGC ATGGTTGG 28

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 1438 base pairs
(B) TYPE: Nucleic Acid
(C) STRANDEDNESS: Single
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

GAATTCCGGC GCGGAGGCCG AGAGAGAAGT CACTTGCCCT GGCTCTACCT 50
TGAAGTGGTT CTCAGGGTTG GGGCGAGAGT CGGGGTGGGG ACCGAGATGC 100
AGCTCTATCC TGTGCCCCTG GTCGCAGCAG GCAGCCCAGC GCTTCGCGTG 150
TTCTACTTGG CCTGTCCGCT GCCGCCTAAT GAGCTCAGGT CTAGGCCGAG 200
CAGAGGGGGC ACCTGGTCGG ACTCGGTTGG GCTCGGGCGG CCCCGCCTCC 250
CCCCGCCCGC CAGGCGGGCC CTTCTCGACG GCGCGGGGCG GGCCCTGCGG 300
GCGCGGGGCT GAAGGCGGAA CCACGACGGG CAGAGAGCAC GGAGCCGGGA 350
AGCCCCTGGG CGCCCGTCGG AGGGCTATGG AGCAGCGGCC GCGGGGCTGC 400
GCGGCGGTGG CGGCGGCGCT CCTCCTGGTG CTGCTGGGGG CCCGGGCCCA 450
GGGCGGCACT CGTAGCCCCA GGTGTGACTG TGCCGGTGAC TTCCACAAGA 500
AGATTGGTCT GTTTTGTTGC AGAGGCTGCC CAGCGGGGCA CTACCTGAAG 550
GCCCCTTGCA CGGAGCCCTG CGGCAACTCC ACCTGCCTTG TGTGTCCCCA 600
AGACACCTTC TTGGCCTGGG AGAACCACCA TAATTCTGAA TGTGCCCGCT 650
GCCAGGCCTG TGATGAGCAG GCCTCCCAGG TGGCGCTGGA GAACTGTTCA 700
GCAGTGGCCG ACACCCGCTG TGGCTGTAAG CCAGGCTGGT TTGTGGAGTG 750
CCAGGTCAGC CAATGTGTCA GCAGTTCACC CTTCTACTGC CAACCATGCC 800
TAGACTGCGG GGCCCTGCAC CGCCACACAC GGCTACTCTG TTCCCGCAGA 850
GATACTGACT GTGGGACCTG CCTGCCTGGC TTCTATGAAC ATGGCGATGG 900
CTGCGTGTCC TGCCCCACGT AATTCCTAGC TGTCGTGGGA TGGAGGGAAG 950
GGCGGCTGGG AGCAGAGCAG GGGCCTGGGG TGGGGCAGGT GCTGCTGGTT 1000
CAGGAATAGG AAGAGGGGAT AGGGAGGAGG GAGCCTTGGC CCTGTGATGG 1050
GTGGGCCCCA CTTCAGGCAA ACTTAGATGG CAAAAGAGCA ATCTGGATCC 1100
GCCTTAGCCA GATACATAAG GGTATTTGCC TTCACTTTCA GCCAGCATTC 1150
CCCCCAGCGA TCCTAGCCAG ATATTACAGA TGATTTGTCA CTTACACAGA 1200
GAGTCACATT GATATAGCTT TAAAACTTGG GCTGAAGGAG GTTGAGGCTG 1250
CAGTGAGCTA TGATCGTGCC ACTGCACTTC AGCCTGGGCA ACAGAGCGAG 1300
ACCTATTAAA TAAATAAATA AATATTAAAT CTATTAAATA TTAAATATTA 1350
AATCTATTAA ATAAATAAAT ACAAAGGGCT GAGAGTCAGG ACTGTGCTGC 1400
TAGTTCTCTA GGGGATCTTG GGCAAGTGCA GAGAATTC 1438

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 417 amino acids
(B) TYPE: Amino Acid
(D) TOPOLOGY: Linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

RAW SEQUENCE LISTING DATE: 10/07/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 11:16:55

Input Set : **A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt**
Output Set: **N:\CRF4\10072004\I993234B.raw**

```
236  Met Glu Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu
237    1               5                  10                  15
239  Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr Arg Ser
240                   20                  25                  30
242  Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys Lys Ile Gly Leu
243                   35                  40                  45
245  Phe Cys Cys Arg Gly Cys Pro Ala Gly His Tyr Leu Lys Ala Pro
246                   50                  55                  60
248  Cys Thr Glu Pro Cys Gly Asn Ser Thr Cys Leu Val Cys Pro Gln
249                   65                  70                  75
251  Asp Thr Phe Leu Ala Trp Glu Asn His His Asn Ser Glu Cys Ala
252                   80                  85                  90
254  Arg Cys Gln Ala Cys Asp Glu Gln Ala Ser Gln Val Ala Leu Glu
255                   95                 100                 105
257  Asn Cys Ser Ala Val Ala Asp Thr Arg Cys Gly Cys Lys Pro Gly
258                  110                 115                 120
260  Trp Phe Val Glu Cys Gln Val Ser Gln Cys Val Ser Ser Ser Pro
261                  125                 130                 135
263  Phe Tyr Cys Gln Pro Cys Leu Asp Cys Gly Ala Leu His Arg His
264                  140                 145                 150
266  Thr Arg Leu Leu Cys Ser Arg Arg Asp Thr Asp Cys Gly Thr Cys
267                  155                 160                 165
269  Leu Pro Gly Phe Tyr Glu His Gly Asp Gly Cys Val Ser Cys Pro
270                  170                 175                 180
272  Thr Ser Thr Leu Gly Ser Cys Pro Glu Arg Cys Ala Ala Val Cys
273                  185                 190                 195
275  Gly Trp Arg Gln Met Phe Trp Val Gln Val Leu Leu Ala Gly Leu
276                  200                 205                 210
278  Val Val Pro Leu Leu Leu Gly Ala Thr Leu Thr Tyr Thr Tyr Arg
279                  215                 220                 225
281  His Cys Trp Pro His Lys Pro Leu Val Thr Ala Asp Glu Ala Gly
282                  230                 235                 240
284  Met Glu Ala Leu Thr Pro Pro Pro Ala Thr His Leu Ser Pro Leu
285                  245                 250                 255
287  Asp Ser Ala His Thr Leu Leu Ala Pro Pro Asp Ser Ser Glu Lys
288                  260                 265                 270
290  Ile Cys Thr Val Gln Leu Val Gly Asn Ser Trp Thr Pro Gly Tyr
291                  275                 280                 285
293  Pro Glu Thr Gln Glu Ala Leu Cys Pro Gln Val Thr Trp Ser Trp
294                  290                 295                 300
296  Asp Gln Leu Pro Ser Arg Ala Leu Gly Pro Ala Ala Ala Pro Thr
297                  305                 310                 315
299  Leu Ser Pro Glu Ser Pro Ala Gly Ser Pro Ala Met Met Leu Gln
300                  320                 325                 330
302  Pro Gly Pro Gln Leu Tyr Asp Val Met Asp Ala Val Pro Ala Arg
303                  335                 340                 345
305  Arg Trp Lys Glu Phe Val Arg Thr Leu Gly Leu Arg Glu Ala Glu
306                  350                 355                 360
308  Ile Glu Ala Val Glu Val Glu Ile Gly Arg Phe Arg Asp Gln Gln
```

RAW SEQUENCE LISTING DATE: 10/07/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 11:16:55

Input Set : **A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt**
Output Set: **N:\CRF4\10072004\I993234B.raw**

```
                  365                 370                 375
 Tyr Glu Met Leu Lys Arg Trp Arg Gln Gln Gln Pro Ala Gly Leu
                  380                 385                 390
 Gly Ala Val Tyr Ala Ala Leu Glu Arg Met Gly Leu Asp Gly Cys
                  395                 400                 405
 Val Glu Asp Leu Arg Ser Arg Leu Gln Arg Gly Pro
                  410                 415
(2) INFORMATION FOR SEQ ID NO: 7:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 27 base pairs
          (B) TYPE: Nucleic Acid
          (C) STRANDEDNESS: Single
          (D) TOPOLOGY: Linear
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
 GGCGCTCTGG TGGCCCTTGC AGAAGCC 27
(2) INFORMATION FOR SEQ ID NO: 8:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 25 base pairs
          (B) TYPE: Nucleic Acid
          (C) STRANDEDNESS: Single
          (D) TOPOLOGY: Linear
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
 TTCGGCCGAG AAGTTGAGAA ATGTC 25
(2) INFORMATION FOR SEQ ID NO: 9:
     (i) SEQUENCE CHARACTERISTICS:
          (A) LENGTH: 1634 base pairs
          (B) TYPE: Nucleic Acid
          (C) STRANDEDNESS: Single
          (D) TOPOLOGY: Linear
    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
 CGGGCCCTGC GGGCGCGGGG CTGAAGGCGG AACCACGACG GGCAGAGAGC 50
 ACGGAGCCGG GAAGCCCCTG GGCGCCCGTC GGAGGGCT  ATG GAG 94
                                           Met Glu
                                             1
 CAG CGG CCG CGG GGC TGC GCG GCG GTG GCG GCG GCG CTC 133
 Gln Arg Pro Arg Gly Cys Ala Ala Val Ala Ala Ala Leu
           5                  10                  15
 CTC CTG GTG CTG CTG GGG GCC CGG GCC CAG GGC GGC ACT 172
 Leu Leu Val Leu Leu Gly Ala Arg Ala Gln Gly Gly Thr
                  20                  25
 CGT AGC CCC AGG TGT GAC TGT GCC GGT GAC TTC CAC AAG 211
 Arg Ser Pro Arg Cys Asp Cys Ala Gly Asp Phe His Lys
      30                  35                  40
 AAG ATT GGT CTG TTT TGT TGC AGA GGC TGC CCA GCG GGG 250
 Lys Ile Gly Leu Phe Cys Cys Arg Gly Cys Pro Ala Gly
               45                  50
 CAC TAC CTG AAG GCC CCT TGC ACG GAG CCC TGC GGC AAC 289
 His Tyr Leu Lys Ala Pro Cys Thr Glu Pro Cys Gly Asn
  55                  60                  65
```

VERIFICATION SUMMARY DATE: 10/07/2004
PATENT APPLICATION: **US/09/993,234B** TIME: 11:16:56

Input Set : **A:\P1007P1D1seq1 (new)-response to 6-29-04 action.txt**
Output Set: **N:\CRF4\10072004\I993234B.raw**

L:1 M:244 W: Invalid beginning of sequence listing, Line=[Patin Docket Preview], General Header Line Not Processed!
L:31 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:32 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]